

REMARKS/ARGUMENTS

Favorable reconsideration of this application, as presently amended and in light of the following discussion, is respectfully requested.

After entry of the foregoing amendments, Claims 1-3 and 5-29 are pending in the present application. Claims 1, 7, 10, 13, 16, 19, 22, and 25-29 are presently under consideration. Claims 2, 3, 5, 6, 8, 9, 11, 12, 14-21, and 22-24 are withdrawn from consideration without prejudice or disclaimer. The present amendment amends Claims 1 and 7; cancels Claim 4 without prejudice or disclaimer; and adds new Claims 25-29. No new matter is added.

In the outstanding Office Action, Claim 1 was rejected under 35 U.S.C. 102(e) as anticipated by U.S. Patent No. 6,577,528 to Gogl et al. (hereinafter “Gogl”); Claims 4, 7, 10, and 13 were rejected under 35 U.S.C. 103(a) as unpatentable over Gogl; and Claim 19 was rejected under 35 U.S.C. 103(a) as unpatentable over Gogl in view of U.S. Patent No. 6,848,169 to Shin (which the Office Action appears to incorrectly refer to as “Zhu”).

Regarding the rejection of Claim 1 under 35 USC 102(e) as anticipated by Gogl, amended Claim 1 incorporates the subject matter of canceled dependent Claim 4. The outstanding Office Action acknowledges that Gogl does not disclose the subject matter of Claim 4.<sup>1</sup> Accordingly, Applicant respectfully requests that the rejection of Claim 1 under 35 USC 102(e) as anticipated by Gogl be withdrawn.

Turning now to the rejection of Claims 4, 7, 10, and 13 under 35 USC 103(a) as unpatentable over Gogl, that rejection is respectfully traversed.

As noted, amended Claim 1 incorporates the subject matter of canceled dependent Claim 4. Thus, the rejection of Claim 4 under 35 USC 103(a) as unpatentable over Gogl is addressed with respect to Claim 1, which now recites that “the pitch of arrangement of the

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<sup>1</sup> Office Action, 4/25/2005, page 4.

first bit line group and the second bit line group is greater than the pitch of arrangement of the bit lines included in the first and second bit line groups.” Amended independent Claim 7 similarly recites “the pitch of arrangement of the magneto-resistive elements is greater between the first and second bit line groups than in the first and second bit line groups.” The remaining claims under consideration depend from Claims 1 or 7.

The third embodiment of Applicant’s specification describes non-limiting examples of the above-noted features. As shown in Figure 7, the pitch P2 of the bit line groups is greater than the pitch P1 of the bit lines in the bit line groups.<sup>2</sup> The third embodiment also discloses that the pitch of the magneto-resistive elements may be greater between the first and second bit line groups than within the first and second bit line groups.”<sup>3</sup>

With the above arrangements, the influence of magnetic fields caused by the write electric current flowing through the bit lines of the selected bit line group upon the unselected bit lines of the unselected bit line groups (which are arranged at a greater pitch P2 from the selected bit line group) is suppressed.<sup>4</sup> Since a write electric current flows through the selected bit lines of the selected bit line group (which are arranged at a smaller pitch P2 from one another), cross talk is greatly reduced between those selected bit lines. In other words, the claimed invention allocates less space between adjacent bit lines of the same bit line group, because the mutual write electric current prevents cross talk; and allocates more space between adjacent bit lines of different bit line groups, because the write electric current is not mutual and therefore will not prevent cross talk. The same advantages can be realized by setting the pitch of the magneto-resistive elements between bit line groups greater than the pitch of the magneto-resistive elements within the same bit line group.<sup>5</sup> Such advantages, especially in view of the need to wisely allocate memory cell space, are believed to

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<sup>2</sup> Applicant’s specification, para. 85.

<sup>3</sup> Applicant’s specification, para. 88.

<sup>4</sup> Applicant’s specification, para. 86.

<sup>5</sup> Applicant’s specification, para. 88.

patentably define the above-noted features over the prior art since Gogl fails to disclose the claimed pitches.

Accordingly, for the above-stated reasons, Applicant respectfully requests that rejection of Claims 1/4, 7, 10, and 13 under 35 U.S.C. 103(a) as unpatentable over Gogl be withdrawn.

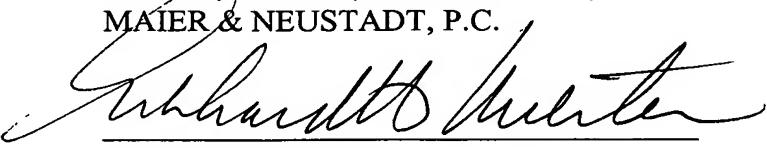
Regarding the rejection of dependent Claim 19 under 35 U.S.C. 103(a) as unpatentable over Gogl in view of Shin (which the Office Action appears to incorrectly refer to as “Zhu”), Applicant respectfully submits that Shin does not cure the above-noted deficiencies of Gogl. Accordingly, Applicant respectfully requests that the rejection of Claim 19 under 35 U.S.C. 103(a) as unpatentable over Gogl and Shin be withdrawn.

New Claims 25-29 correspond to Claims 10, 13, 16, 19, and 22, respectively, but depend from Claim 7 instead of Claim 1. Applicant submits that Claims 25-29 patentably define over the prior art in view of at least their dependence upon Claim 7.

Consequently, in light of the above discussion and in view of the present amendment, the present application is believed to be in condition for allowance. An early and favorable action to that effect is respectfully requested.

Respectfully submitted,

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